

What is claimed is:

- 1 1. A method comprising:
2 inserting a vector in a packet that identifies a first
3 device in a stack of packet forwarding devices that delivers
4 the packet to an exception processor being shared by the
5 packet forwarding devices in the stack.
- 1 2. The method of claim 1 further comprising:
2 inserting a flag in the packet that indicates the packet
3 is associated with an exception.
- 1 3. The method of claim 1 further comprising:
2 using the vector and a table to determine a port for
3 sending the packet to the first device in the stack of packet
4 forwarding devices.
- 1 4. The method of claim 1 wherein the vector includes a bit
2 identifying the first device in the stack of packet forwarding
3 devices.
- 1 5. The method of claim 1 further comprising:
2 removing the vector from the packet for delivering the
3 packet to the exception processor shared by the packet
4 forwarding devices in the stack.

1 6. The method of claim 1 wherein the packet is delivered
2 over a transmission line in an aggregate of transmission lines
3 to the exception processor shared by the packet forwarding
4 devices in the stack.

1 7. The method of claim 1 wherein the vector includes bits
2 respectively identifying the packet forwarding devices in the
3 stack.

1 8. A computer program product, tangibly embodied in an
2 information carrier, the computer program product being
3 operable to cause a machine to:

4 insert a vector in a packet that identifies a first
5 device in a stack of packet forwarding devices that
6 delivers the packet to an exception processor being
7 shared by the packet forwarding devices in the stack.

1 9. The computer program product of claim 8 being further
2 operable to cause a machine to:

3 insert a flag in the packet that indicates the
4 packet is associated with an exception.

1 10. The computer program product of claim 8 being further
2 operable to cause a machine to:

3 use the vector and a table to determine a port for
4 sending the packet to the first device in the stack of
5 packet forwarding devices.

1 11. The computer program product of claim 8 wherein the
2 vector includes a bit identifying the first device in the
3 stack of packet forwarding devices.

1 12. A computer program product of claim 8 being further
2 operable to cause a machine to:

3 remove the vector from the packet for delivering the
4 packet to the exception processor shared by the packet
5 forwarding devices in the stack.

1 13. The computer program product of claim 8 wherein the
2 packet is delivered over a transmission line in an aggregate
3 of transmission lines to the exception processor shared by the
4 packet forwarding devices in the stack.

1 14. The computer program product of claim 8 wherein the
2 vector includes bits respectively identifying the packet
3 forwarding devices in the stack.

1 15. A packet forwarder comprises:

2 a process to insert a vector in a packet that
3 identifies a first device in a stack of packet forwarding
4 devices that delivers the packet to an exception

5 processor being shared by the packet forwarding devices
6 in the stack.

1 16. The packet forwarder of claim 15 further comprising:
2 a process to insert a flag in the packet that
3 indicates the packet is associated with an exception.

1 17. The packet forwarder of claim 15 further comprising:
2 a process to use the vector and a table to determine
3 a port for sending the packet to the first device in the
4 stack of packet forwarding devices.

1 18. A system comprising:
2 a switch device capable of,
3 inserting a vector in a packet that identifies
4 a first device in a stack of packet forwarding
5 devices that delivers the packet to an exception
6 processor being shared by the packet forwarding
7 devices in the stack.

1 19. The system of claim 18 wherein the switch device is
2 further capable of:
3 inserting a flag in the packet that indicates the
4 packet is associated with an exception.

1 20. The system of claim 18 wherein the switch device is
2 further capable of:

3 using the vector and a table to determine a port for
4 sending the packet to the first device in the stack of
5 packet forwarding devices.

1 21. A packet forwarding device comprising:

2 an input port for receiving a packet;

3 an output port for delivering the received packet;

4 and

5 a switch device capable of,

6 inserting a vector in a packet that identifies

7 a first device in a stack of packet forwarding

8 devices that delivers the packet to an exception

9 processor being shared by the packet forwarding

10 devices in the stack.

1 22. The packet forwarding device of claim 21 wherein the

2 switch device is further capable of:

3 inserting a flag in the packet that indicates the

4 packet is associated with an exception.

1 23. The packet forwarding device of claim 21 wherein the

2 switch device is further capable of:

3 using the vector and a table to determine a port for

4 sending the packet to the first device in the stack of

5 packet forwarding devices.

1 24. A router comprising:

2 a switch device capable of inserting a device vector
3 in a packet that identifies a first device in a stack of
4 packet forwarding devices that delivers the packet to an
5 exception handler being shared by the packet forwarding
6 devices in the stack.

1 25. The router of claim 24 wherein the switch device is
2 further capable of inserting an exception flag in the packet
3 that indicates the packet is associated with an exception.

1 26. The network switch of claim 24 wherein the switch device
2 is further capable of using the device vector and an exception
3 routing table to determine a port for sending the packet to
4 the first device in the stack of packet forwarding devices.